Olin CHEMICALS
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September 11, 1991

VIA FAX

Ken Lucas
Remedial Project Manager
United States Environmental Protection Agency
345 Courtland Street Northeast
Atlanta, Georgia 30365

Re: Needed Modification to Analytical Method for Mercury
Olin Chemicals/McIntosh Plant Site
McIntosh, Alabama

Dear Mr. Lucas:

Thank you for your help in Cheryl Smith's absence. As you know we agreed to use EPA's Contract Laboratory Program (CLP) Method 245.5 CLP-M* to analyze mercury in sediments from the Basin. This method has a working range of 0.2 to 5 mg Hg/kg sediment using a sample size of 0.2 grams. If the sediment contains a higher concentration than this (and some of the McIntosh Basin samples do), the method offers the alternative of using a smaller sample size for analyzing the sample. We would prefer not to move into the method working range by reducing the starting sample size. A sample size of 0.2 grams already presents concerns regarding representativeness of the much larger field sample, given the practical difficulties of homogenizing sediment samples. Starting with a sample smaller than the prescribed 0.2 grams only increases those concerns.

To analyze these samples, we propose to follow Method 245.5 CLP-M* as it is written with one modification: after digesting 0.2 grams of sediment, an aliquot of the total digestate will be removed and analyzed. If the results are within the method working range, the concentration in the sample will be calculated by multiplying the result by:

Total digestate volume/Aliquot volume

We would appreciate an expeditious response as this problem became apparent only after some of the samples were analyzed and we do not want to exceed the 28-day holding time.

We appreciate your sending us Method 202.62 from the more recent CLP Statement of Work (SOW). We are a little confused as to which version of the SOW this is from and would appreciate clarification of this. Method 202.62 is a significant change in text when compared to 245.5. However, it is based on the same analytical concepts as

245.5 and seems to be more flexible in its application than 245.5. In fact, it seems to allow the alternative that we are proposing above. With the samples in the laboratory already, we cannot implement 202.62 for these samples. We will review the method for its use in the future.

Sincerely,

J. C. Brown
Manager, Environmental Technology

jmm

cc: W. A. Beal
D. E. Cooper (2)
T. B. Odom